Application No. 10/716,190
Filed: November 18, 2003
TC Art Unit: 1732
Confirmation No.: 4133

TO THE CLAIMS

Please amend claims 1 and 6 as shown in the Summary of the Claims section, *infra*. No Previously presented matter has been added. Additions are underlined and deletions are struckthrough.

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SUMMARY OF THE CLAIMS

Claim 1 (Currently amended). A method for controlling a thickness of a skin layer on a composite product having the skin layer and a core layer, comprising steps of:

(a) adding a carbon nanomaterial to either a first thermoplastic resin or a second thermoplastic resin to cause or increase a difference in viscosity between those resins; and

(b) injection molding both said resins into a mold to produce said composite product having the skin layer containing said first thermoplastic resin and the core layer containing said second thermoplastic resin so as to control the thickness of the skin layer by said difference in viscosity,

wherein said first thermoplastic resin is firstly injected into the mold, then said second thermoplastic resin is[[~~in~~]] injected into said first thermoplastic resin in the mold.

Claim 2 (Original). The method according to Claim 1, wherein said first resin and said second resin are same kind of resin.

Claim 3 (Original). The method according to Claim 1, wherein said first resin and said second resin are different kinds of resins.

Claim 4 (Previously presented). The method according to Claim 1, wherein adding the carbon nanomaterial to the first thermoplastic resin or the second thermoplastic includes kneading said carbon nanomaterial and thermoplastic resin to provide better dispersion efficiency.

Claim 5 (Previously presented). The method according to Claim 1, wherein adding the carbon nanomaterial to the thermoplastic resins comprises adding the carbon nanomaterial in a range between about 1 and about 20 percent by mass.

Claim 6 (Currently amended). The method according to Claim 1, wherein adding the carbon nanomaterial comprises adding fullerene ~~or carbon nanotube~~ to a polypropylene resin to decrease the viscosity of the polypropylene resin.

Claim 7 (Previously presented). The method according to Claim 6, wherein the carbon nanotube has a particle length and a viscosity variation is controlled by controlling the particle length of the carbon nanotube.

Claim 8 (Previously presented). The method according to Claim 7, wherein the viscosity increases with increasing particle length of the carbon nanotube.

Claim 9 (Previously presented). The method according to Claim 1, wherein carbon nanomaterial is added to the second thermoplastic resin so that the viscosity of the second thermoplastic resin is made greater than the viscosity of the first thermoplastic resin and the skin layer of the first thermoplastic resin is pressed and stretched by the more viscous second thermoplastic layer to control its thickness.

Claim 10 (Previously presented). The method according to Claim 1, wherein carbon nanomaterial is added to the first thermoplastic resin so that the viscosity of the first

thermoplastic resin is made less than the viscosity of the second thermoplastic resin and the skin layer of the first thermoplastic resin is pressed and stretched by the more viscous second thermoplastic layer to control its thickness.